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**Axial setting device with disc spring transmission**

Claims

1. A coupling assembly (11) having an axial setting device (21) in the form of a ball ramp assembly with an axially supported supporting disc (23) and an axially displaceable pressure disc (24) which, in their end faces facing one another, are provided with ball grooves (25, 26) whose depth is circumferentially variable in opposite directions, wherein balls (27) via which the supporting disc (23) and the pressure disc (24) axially support one another run in pairs of ball grooves and wherein the supporting disc (23) and the pressure disc (24) are rotatable relative to one another by being driven by a motor,

characterised in

that the pressure disc (24) acts on the first pressure plate (42) and that the coupling assembly (11) is loaded by a second pressure plate (46), wherein a disc spring (43) is arranged between the first pressure plate (42) and the second pressure plate (46), wherein the apex of the disc angle of the disc spring (43) points towards the first pressure plate (42) and which disc spring (43), at its outer circumference, is axially secured in the coupling carrier (12), acts on the second pressure plate (46) by means of an intermediate diameter D3 and, at its inner edge, rests against the first pressure plate (42).

2. A coupling assembly according to claim 1,

characterised in

that the distance D1 between the outer edge of the disc spring (43) and the intermediate diameter D3 is smaller than the distance D2 between the intermediate diameter and the inner edge of the disc spring (43), more particularly smaller by a multiple thereof.

3. A coupling assembly according to any one of claims 1 or 2,

characterised in

that the second pressure plate (46), on the intermediate diameter D3, comprises a formed on annular web (47) which is in contact with the disc spring.

4. A coupling assembly according to any one of claims 1 to 3,

characterised in

that the disc spring (43), by means of its inner edge, freely rests against a radial face of the first pressure plate (42).

5. A coupling assembly according to any one of claims 1 to 4,

characterised in

that the disc spring (43), by means of its outer edge, is axially fixed between two securing rings (44, 45) secured in a coupling carrier (12).

6. A coupling assembly according to any one of claims 1 to 5,

characterised in

that there is provided a multi-plate coupling with a coupling carrier (12) and a coupling hub (13), whose coupling plates are alternately connected to the coupling carrier and the coupling hub, wherein the plate package (14) is axially supported against the coupling carrier (12).

7. A coupling assembly according to any one of claims 1 to 6,

characterised in

that an axial bearing (41) is arranged between the first pressure plate (42) and the pressure disc (24) of the ball ramp assembly.